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EXAMINER

DUONG, CHRISTINE T

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2616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

8

Office Action Summary	Application No. 10/612,401	Applicant(s) WANG ET AL.	
	Examiner Christine Duong	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-7,9-11,15-20 and 24-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-7,9-11,15-20 and 24-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓ | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This is in response to the Applicant's arguments and amendments filed on 01 August 2007 in which claims 1, 3, 5-7, 9-11, 15-20, 24-32 are currently pending.

Claim Rejections - 35 USC § 102

1. Claims 1, 3, 5-6, 9-11, 17-18, 20, 24-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsui (PG Pub US 2002/0141740 A1).

Regarding claims **1 and 24**, Matsui discloses a computer-readable medium ("the data transmission apparatus (server) can be constituted in an independent computer system by recording a program for performing the data transmission process" [0327] lines 5-9) and a method for streaming media from a streaming server (server, fig. 7) to a streaming client (client terminal, fig. 7) via a transmission channel (network, fig. 7), wherein the method comprises:

receiving a first request for media from a streaming client at a streaming server ("when the user performs an operation for specifying the video data to be obtained on a video data selection screen, an operation signal Sop1 according to this operation is inputted to the HTTP transmission/reception unit 211, whereby a signal Sd1 for requesting SMIL data relating to the specified video data (SMIL request message Mdr) is transmitted from the HTTP transmission/reception unit 211 to the server 100a" [0168] lines 3-10);

sending a response to the received first request from the streaming server to the streaming client, the response including a plurality of error resilience levels supportable

by the streaming server in sending the media to the streaming client ("the HTTP transmission/reception unit 101 reads an SMIL file Da corresponding to the SMIL data request signal Sd1 from the data storage unit 120, and transmits is as SMIL data Dsm by HTTP. The SMIL data Dsm is transmitted through the network 11 to the receiving terminal 200b to be received by the HTTP transmission/reception unit 211" [0169] lines 3-9 and "video data to be initially received is selected from among plural video data files shown in an SMIL file on the basis of the anti-error intensity" [0158] lines 2-4 and fig. 5(a));

receiving a second request from the streaming client at the streaming server, the second request including an error resilience level selected from the plurality of error resilience levels ("a video data file most suitable to the contents of the user setting is selected from among the four video data files, and a designation signal Sc designating the selected video data file is outputted to the RTSP message transmission/reception unit 2142. In the RTSP message transmission/reception unit 214, the designation signal Sc is transmitted to the server 100a as an RTSP message signal Mrtsp" [0170] lines 3-9); and

sending the media from the streaming server to the streaming client based on the error resilience level ("the transmission unit 103 selects a predetermined video file is selected from among the plural video files stored in the data storage unit 120, on the basis of the designation signal Sc, and transmits it as RTP data Drtp" [0171] lines 5-8).

Regarding claim 3, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses said plurality of error resilience levels are defined

in accordance with a targeted highest data loss rate or a packet loss rate ("the rate of packet loss is calculated as the incidence of error on the basis of sequence number information included in the headers of the RTP packets (RTP data)" [0162] lines 1-4).

Regarding claim 5, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses receiving from the streaming client at the streaming server, a request for a different error resilience level ("the data analysis unit 212b outputs the data designation signal Sc which instructs the server 100a to switch the video stream supplied from the server 100a to a video stream having a higher anti-transmission-error property or a higher video quality, according to a variation in the packet loss rate" [0230] lines 9-14); and

adapting, by the streaming server, the error resilience level of the media sent in accordance with the request ("when the incidence of transmission error is high, the receiving terminal 200b can receive a video stream having a short I-frame interval and a high anti-error intensity from among the video streams stored at the server end" [0230] lines 14-18).

Regarding claim 6, Matsui discloses everything claimed as applied above (see claim 5). In addition, Matsui discloses said request is one of the following: a request for a specific error resilience level, an error resilience level increase request, or an error resilience level decrease request ("the data analysis unit 212b outputs the data designation signal Sc which instructs the server 100a to switch the video stream supplied from the server 100a to a video stream having a higher anti-transmission-error

property or a higher video quality, according to a variation in the packet loss rate" [0230] lines 9-14).

Regarding claim 9, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses the media at the streaming server is associated with an error resilience value indicating a media content error resilience level ("four video data files having different anti-error intensities is employed" [0231] lines 2-3 and further fig. 5(a)).

Regarding claim 10, Matsui discloses everything claimed as applied above (see claim 9). In addition, Matsui discloses said error resilience value is stored in a file format in which said media is stored ("SMIL file FSD2 shown in Fig. 5(a) which shows four video data files having different anti-error intensities" [0231] lines 1-3).

Regarding claim 11, Matsui discloses everything claimed as applied above (see claim 5). In addition, Matsui discloses error resilience adaptation is performed by switching the streaming server from sending a first generated stream having the error resilience level to sending a second generated stream having the different error resilience level, the different error resilience level differing from the error resilience level ("when the anti-error intensity is set at [low level] in the receiving terminal, the video stream corresponding to the video element 721 is selected as a video to be received. If the incidence of transmission error increases after reception of the video stream (s1.mp4), the video stream being received is switched to the video stream (s2.mp4) or the video stream (s3.mp4) which are given the system-protocol attribute value "fret" or "ret+fec", respectively" [0235] lines 1-12).

Regarding claim 17, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses said media comprises at least one of the following: a video content, an audio content, a still image, graphics, text and speech ("the client terminal 200b determines a video stream having an optimum anti-error intensity on the basis of an anti-error intensity of video data to be received" [0157] lines 5-8).

Regarding claim 18, Matsui discloses a client device (client terminal, fig. 7) comprising:

receiving means for receiving streaming media sent from a streaming server to the client device via a transmission channel ("the transmission unit 103 selects a predetermined video file is selected from among the plural video files stored in the data storage unit 120, on the basis of the designation signal Sc, and transmits it as RTP data Drtp" [0171] lines 5-8) and for receiving a plurality of error resilience levels supportable by the streaming server in streaming the media to the client device ("the HTTP transmission/reception unit 101 reads an SMIL file Da corresponding to the SMIL data request signal Sd1 from the data storage unit 120, and transmits is as SMIL data Dsm by HTTP. The SMIL data Dsm is transmitted through the network 11 to the receiving terminal 200b to be received by the HTTP transmission/reception unit 211" [0169] lines 3-9 and "video data to be initially received is selected from among plural video data files shown in an SMIL file on the basis of the anti-error intensity" [0158] lines 2-4 and fig. 5(a));

detection means for detecting transmission channel errors ("an incidence-of-error calculation unit 216b1 performs process P1 in which the incidence of error is calculated" [0220] lines 1-3); and

sending means for sending an error resilience selection from the received plurality of error resilience levels to the streaming server ("a video data file most suitable to the contents of the user setting is selected from among the four video data files, and a designation signal Sc designating the selected video data file is outputted to the RTSP message transmission/reception unit 2142. In the RTSP message transmission/reception unit 214, the designation signal Sc is transmitted to the server 100a as an RTSP message signal Mrtsp" [0170] lines 3-9).

Regarding claim 20, Matsui discloses a streaming server (server, fig. 7) comprising:

receiving means for receiving a first request for media from a streaming client ("when the user performs an operation for specifying the video data to be obtained on a video data selection screen, an operation signal Sop1 according to this operation is inputted to the HTTP transmission/reception unit 211, whereby a signal Sd1 for requesting SMIL data relating to the specified video data (SMIL request message Mdr) is transmitted from the HTTP transmission/reception unit 211 to the server 100a" [0168] lines 3-10) and for receiving a second request from the streaming client, the second request including an error resilience level selected from a plurality of error resilience levels ("a video data file most suitable to the contents of the user setting is selected from among the four video data files, and a designation signal Sc designating the

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selected video data file is outputted to the RTSP message transmission/reception unit 2142. In the RTSP message transmission/reception unit 214, the designation signal Sc is transmitted to the server 100a as an RTSP message signal Mrtsp" [0170] lines 3-9); and

sending means for sending a response to the first request to the streaming client, the response including the plurality of error resilience levels supportable by the streaming server in sending the media to the streaming client ("the HTTP transmission/reception unit 101 reads an SMIL file Da corresponding to the SMIL data request signal Sd1 from the data storage unit 120, and transmits is as SMIL data Dsm by HTTP. The SMIL data Dsm is transmitted through the network 11 to the receiving terminal 200b to be received by the HTTP transmission/reception unit 211" [0169] lines 3-9 and "video data to be initially received is selected from among plural video data files shown in an SMIL file on the basis of the anti-error intensity" [0158] lines 2-4 and fig. 5(a)) and for sending streaming media to the streaming client via a transmission channel based on the error resilience level ("the transmission unit 103 selects a predetermined video file is selected from among the plural video files stored in the data storage unit 120, on the basis of the designation signal Sc, and transmits it as RTP data Drtp" [0171] lines 5-8).

Regarding claims **25 and 26**, Matsui discloses a computer-readable medium ("the data reproduction apparatus (receiving terminal) can be constituted in an independent computer system by recording a program for performing the data

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reproduction process" [0327] lines 5-9) and a method for receiving streamed media from a streaming server via a transmission channel, the method comprising:

sending a first request for media from a streaming client to a streaming server ("when the user performs an operation for specifying the video data to be obtained on a video data selection screen, an operation signal Sop1 according to this operation is inputted to the HTTP transmission/reception unit 211, whereby a signal Sd1 for requesting SMIL data relating to the specified video data (SMIL request message Mdr) is transmitted from the HTTP transmission/reception unit 211 to the server 100a" [0168] lines 3-10);

receiving a response from the streaming server at the streaming client, the response including a plurality of error resilience levels supportable by the streaming server when sending the media ("the HTTP transmission/reception unit 101 reads an SMIL file Da corresponding to the SMIL data request signal Sd1 from the data storage unit 120, and transmits is as SMIL data Dsm by HTTP. The SMIL data Dsm is transmitted through the network 11 to the receiving terminal 200b to be received by the HTTP transmission/reception unit 211" [0169] lines 3-9 and "video data to be initially received is selected from among plural video data files shown in an SMIL file on the basis of the anti-error intensity" [0158] lines 2-4 and fig. 5(a));

sending a second request from the streaming client to the streaming server, the second request including an error resilience level selected from the plurality of error resilience levels ("a video data file most suitable to the contents of the user setting is selected from among the four video data files, and a designation signal Sc designating

the selected video data file is outputted to the RTSP message transmission/reception unit 2142. In the RTSP message transmission/reception unit 214, the designation signal Sc is transmitted to the server 100a as an RTSP message signal Mrtsp" [0170] lines 3-9); and

receiving the media from the streaming server at the streaming client based on the error resilience level ("the transmission unit 103 selects a predetermined video file is selected from among the plural video files stored in the data storage unit 120, on the basis of the designation signal Sc, and transmits it as RTP data Drtp" [0171] lines 5-8).

Regarding claim 27, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses the error resilience level is an integer value ("four video data files having different anti-error intensities is employed" [0231] lines 2-3 and fig. 5(a)).

Regarding claim 28, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses identifying a media content error resilience level from the media wherein the plurality of error resilience levels includes the identified media content error resilience level ("four video data files having different anti-error intensities is employed" [0231] lines 2-3 and figs. 5(a) or 13(a)).

Regarding claim 29, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses the plurality of error resilience levels includes a default error resilience level and an alternative error resilience level ("the receiving terminal requests a video stream corresponding to a video element suited to the default value of the anti-error intensity, among the plural video elements 711-714 described in

the SMIL file FSD2, and receives this video stream. Thereafter, in the receiving terminal, the video stream being received is switched to a video stream having an appropriate anti-error intensity according to the incidence of error during reception of the video stream" [0248]).

Regarding claim 30, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses selecting a media stream to send the media from a plurality of media streams based on the error resilience level ("in the receiving terminal 200b, video data to be initially received is selected from among plural video data files shown in an SMIL file on the basis of the anti-error intensity" [0158] lines 1-4).

Regarding claim 31, Matsui discloses everything claimed as applied above (see claim 1). In addition, Matsui discloses after sending the media from the streaming server to the streaming client, receiving a third request from the streaming client at the streaming server, the third request including a new error resilience level selected based on an error rate ("the data analysis unit 212b outputs the data designation signal Sc which instructs the server 100a to switch the video stream supplied from the server 100a to a video stream having a higher anti-transmission-error property or a higher video quality, according to a variation in the packet loss rate" [0230] lines 9-14).

Claim Rejections - 35 USC § 103

2. Claims 7, 15-16, 19 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui.

Regarding claim 7, Matsui discloses everything claimed as applied above (see claim 1). However, Matsui fails to specifically disclose the streaming server receives

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from the streaming client a RTCP (RTP Control Protocol (Real-Time Streaming Protocol)) report, indicative of transmission channel errors, and wherein the streaming server decides on a different error resilience level based on the RTCP report, as claimed.

Nevertheless, Matsui teaches "the client terminal 200c is provided with an RTCP report transmission/reception unit 219 which transmits information Drr indicating the transmission status as a receiver report to the server 100c" (Matsui [0254] lines 7-10) and "information relating to the incidence of transmission error, the RTP packet arrival time, and the like is transmitted as a receiver report Drr from the RTCP report transmission/reception unit 219 to the server 100c" (Matsui [0260] lines 1-4) and "the server 100c switches the video stream being transmitted as RTP data to the receiving terminal 200a, to another video stream having a different coding condition, on the basis of the receiver report supplied from the receiving terminal 200c" (Matsui [0258] lines 4-7).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to receive at the streaming server from the streaming client a RTCP report indicative of transmission channel errors and wherein the streaming server decides on a different error resilience level based on the RTCP report because "the RTCP report transmission/reception units 104 and 219 transmit the sender report and the receiver report by RTCP (Real Time Control Protocol)" (Matsui [0256] lines 1-3).

Regarding claim 15, Matsui discloses everything claimed as applied above (see claim 1). However, Matsui fails to specifically disclose sending the media uses a transmission channel at least partially implemented via a mobile communications network, as claimed.

Nevertheless, Matsui teaches "a handy phone 300 includes a signal processing unit 302 for performing various kinds of signal processing; and a radio communication unit 303 for outputting a radio signal N received by an antenna 301 to the signal processing unit 302 as a reception signal, and a transmitting a transmission signal generated by the signal processing unit 302 from the antenna 301 as a radio signal N" [0322] lines 1-7 and fig. 16).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to send media using a transmission channel at least partially implemented via a mobile communications network because "the international standards organization 3GPP which defines the standard of receiving terminals in radio networks, provides that RTP/UDP/IP is employed as a protocol for transmitting video data between a server and a receiving terminal, and RTSP/TCP/IP is employed as a protocol for requesting data from a receiving terminal to a server" (Matsui [0005] lines 1-10).

Regarding claim 16, Matsui discloses everything claimed as applied above (see claim 15). However, Matsui fails to specifically disclose that the streaming server has an IP connection (Internet Protocol) to an IP-based network which is configured to be coupled with the mobile communications network, as claimed.

Nevertheless, Matsui teaches "fig. 18 shows a conventional data transmission system 20 for distributing video data using the Internet" (Matsui [0006]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to connect an IP-based network with the mobile communications network because "the international standards organization 3GPP which defines the standard of receiving terminals in radio networks, provides that RTP/UDP/IP is employed as a protocol for transmitting video data between a server and a receiving terminal, and RTSP/TCP/IP is employed as a protocol for requesting data from a receiving terminal to a server" (Matsui [0005] lines 1-10).

Regarding claim 19, Matsui discloses everything claimed as applied above (see claim 18). However, Matsui fails to specifically disclose the client device is a mobile station of a cellular network, as claimed.

Nevertheless, Matsui teaches "a handy phone 300 includes a signal processing unit 302 for performing various kinds of signal processing; and a radio communication unit 303 for outputting a radio signal N received by an antenna 301 to the signal processing unit 302 as a reception signal, and a transmitting a transmission signal generated by the signal processing unit 302 from the antenna 301 as a radio signal N" [0322] lines 1-7 and fig. 16).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to send media using a transmission channel at least partially implemented via a mobile communications network because "the international standards organization 3GPP which defines the standard of receiving

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terminals in radio networks, provides that RTP/UDP/IP is employed as a protocol for transmitting video data between a server and a receiving terminal, and RTSP/TCP/IP is employed as a protocol for requesting data from a receiving terminal to a server" (Matsui [0005] lines 1-10).

Regarding claim 32, Matsui discloses everything claimed as applied above (see claim 1). However, Matsui fails to specifically disclose that receiving a third request from the streaming client at the streaming server, the third request including a request to identify a current error resilience level, as claimed.

Nevertheless, Matsui teaches "fig. 4(b) explains a mobile terminal 201b for setting the level of anti-error intensity using a slide bar" (Matsui [0138] lines 1-3) and further "in the user operation unit 213 of the mobile terminal 201b, an integral value within a range of 0-100 is calculated as an anti-error intensity level according to the position of the slide bar" (Matsui [0141] lines 1-4).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to receiving a third request identifying a current error resilience level because "the calculated value is held as the anti-error intensity value of the mobile terminal 201b" (Matsui [0144] lines 5-7).

Citations of Pertinent Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zhang et al. (PG Pub US 2003/0193900 A1) discloses a unique sync mark applied by an encoder to the beginning of each frame in a data packet of a Windows Media™ Audio bitstream by a Microsoft® Windows Media™ Audio (WMA) codec.

Response to Arguments

4. Previous objections to the specification and claims 4, 5, 7, 11 and 14 are withdrawn in view of Applicant's amendment.
5. Previous 35 USC 101 rejections to claims 22 and 23 and 35 USC 112 rejections to claims 7, 12 and 17 are withdrawn in view of Applicant's amendment.
6. Applicant's arguments with respect to claims 1, 18, 20, 24-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Duong whose telephone number is (571) 270-1664. The examiner can normally be reached on Monday - Friday: 830 AM-6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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